

REMARKS

The Applicant thanks the Examiner for the careful examination of this application. Claims 1 - 13 are currently pending and rejected. In accordance with the Examiner's request, the Applicant affirms the election of Group 1, claims 1-13.

Independent Claim 1 positively recites that the transfer chamber module is operable to expose the semiconductor wafer to a vaporous solution. These advantageously claimed features are not taught or suggested by the patents granted to Kato et al., or Mitani et al., either alone or in combination.

The Applicant respectfully traverses the assertion in the Office Action that "...the prior art apparatus is not structurally different from the claimed invention and would be capable of discharging vaporous solution..." Kato et al. teaches that the chamber supplies only inert gas (column 5, lines 32-34; column 6, lines 3, 45, and 58). In general, "gas" refers to all permanently elastic fluids except atmospheric air, but "vapor" refers to those elastic fluids which lose that condition at ordinary temperatures. The Applicant submits that the differences between "inert gas" and "vaporous solution" are significant in the processing field of art. Therefore, the physical structure of the systems performing a gas process is significantly different than the physical structure of the systems performing a vapor process. For example, the source for generating a vapor is a liquid but the source for gas is a gas cylinder. The monitoring, control, and tracking of vapor is different for gas at the source and also at the entrance to the process chamber. The composition of the pipes, the process chamber, and the handling materials within

the process chamber are different for a vapor environment than a gas environment. The pump requirements within the process chamber for vapor (less stringent) are different than gas (more stringent). On the other side of the chamber, the removal mechanism for vapor (liquid removal) is different than inert gas (no removal issue). Corrosion issues are also very different for vapor than inert gas. Therefore, the Applicant respectfully submits that Kato et al. does not teach or suggest the advantageously claimed system.

Mitani et al. describes a system for preparing an empty reaction chamber for future processing. The Applicant submits that there is not suggestion or teaching to combine Mitani et al. with Kato et al. In fact it would be illogical to combine portions of a vacuum reserve chamber (Kato) with portions of a reaction chamber (Mitani). Moreover, if some combination of Kato and Mitani were created, the resultant hypothetical chamber would not teach or suggest the Applicants system because the structure of a chamber using inert gas (Kato) is not the same as the structure of the advantageously claimed chamber using vaporous solutions.

Therefore, the Applicant respectfully traverses the Examiner's rejection of Claim 1 and respectfully asserts that Claim 1 is patentable over Kato et al. and Mitani et al, either alone or in combination. Furthermore, Claims 2 – 7 are allowable for depending on allowable independent Claim 1 and, in combination, including limitations not taught or described in the references of record.

Independent Claim 8 positively recites a plurality of outlets operable to discharge an amount of a vaporous solution into the chamber. These advantageously claimed features are not taught or suggested by the patents granted to Kato et al., Nishimura et al., or Mitani et al., either alone or in combination.

The Applicant submits that the prior art fails to teach all the structural limitations of the claim. The apparatus of Kato et al. is incapable of discharging a vaporous solution for numerous reasons described supra.

Similarly, the apparatus of Nishimura et al. is incapable of discharging a vaporous solution. First, the chamber taught in Nishimura et al. contains electrodes (elements 2 and 3). Second, the chamber taught in Nishimura et al. transforms gas into plasma to perform a plasma etch process. Therefore, the composition, handling materials, pump requirements, piping, and impurity requirements are different for Nishimura's chamber than the transfer chamber advantageously claimed. Moreover, there is no teaching or suggestion to combine Kato et al.'s vacuum reserve chamber with Nishimura et al.'s plasma etch chamber, and to do so would be illogical (the electrodes of Nishimura could not be used in the Kato chamber).

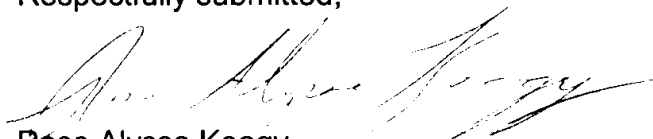
Lastly, there is no teaching or suggestion to combine Kato et al.'s vacuum reserve chamber with Nishimura et al.'s plasma etch chamber plus Mitani et al.'s reaction chamber, and to do so would be illogical (the electrodes of Nishimura could not be used in the Kato or Mitani chambers). Even if a hypothetical

combination of Kato, Nishimura, and Mitani were created, the resultant hypothetical chamber would not teach or suggest the Applicants system because the hardware and composition of a chamber using gas (Kato and Nishimura) is not the same as the hardware and composition of the advantageously claimed outlets operable to discharge an amount of vaporous solution into a chamber.

Therefore, the Applicant respectfully traverses the Examiner's rejection of Claim 8 and respectfully asserts that Claim 8 is patentable over Kato et al., Nishimura et al., and Mitani et al, either alone or in combination. Furthermore, Claims 9 – 13 are allowable for depending on allowable independent Claim 8 and, in combination, including limitations not taught or described in the references of record.

For the reasons stated above, this application is believed to be in condition for allowance. Reexamination and reconsideration is requested.

Respectfully submitted,



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